

Communicable Disease Outbreak

SUMMARY: Local and state public health staff followed up with parents of ill children in a childcare facility after a physician notified the local public health agency that two children tested positive for a parasitic disease. Through their investigation, it was learned that the common factor was that all the children had been to the local swimming pool. The local public health agency worked with the pool owner and jointly decided to close the pool until the outbreak could be brought under control. Following this outbreak and several similar ones around the country, the US Centers for Disease Control and Prevention formed a workgroup to develop guidance documents and tools for pool operators. The Missouri public health staff that worked on this outbreak participated in the workgroup, which created documents available today for people around the world to use.

DETAILED STORY:

A physician called the Local Public Health Agency (LPHA) in Madison County. He had just seen two children with diarrhea that had tested positive for cryptosporidium, a parasitic disease. He called because his two young patients had both been swimming at the local pool, and a parent had told him several other children, who attended the same child care facility, were also sick.

Cryptosporidium is a microscopic parasite that lives in the intestines of people and animals. It is most often transmitted through water used for drinking or swimming. It causes watery diarrhea with stomach cramps, nausea, vomiting, and dehydration. The sickness usually lasts 1-2 weeks.

The LPHA promptly notified the Missouri Department of Health & Senior Services regional disease investigator and relayed the information provided by the physician. The regional investigator recommended follow up with the childcare facility to assess the need for further action. Upon contacting the childcare facility the LPHA learned that it had sent four more children home with diarrhea in the past two days. Working together, the county and state health departments interviewed the parents of the ill children to find out what they had in common. After ruling out other possibilities, the county health department determined that all the ill children had been to the local pool for summer fun activities.

Once that was established, many questions arose: What do we do next? How do we get the pool water tested? Should the pool be closed? Should the parents of the childcare attendees be notified? There was very little guidance available at that time for public health workers or pool operators in this situation. Chlorination doesn't kill cryptosporidium unless it is at a highly concentrated level for a long time. The public health staff worked with the pool owner and jointly decided to close the pool until the outbreak could be brought under control.

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